Use Attainability Analysis

for

WBID 0443 Cypress Creek

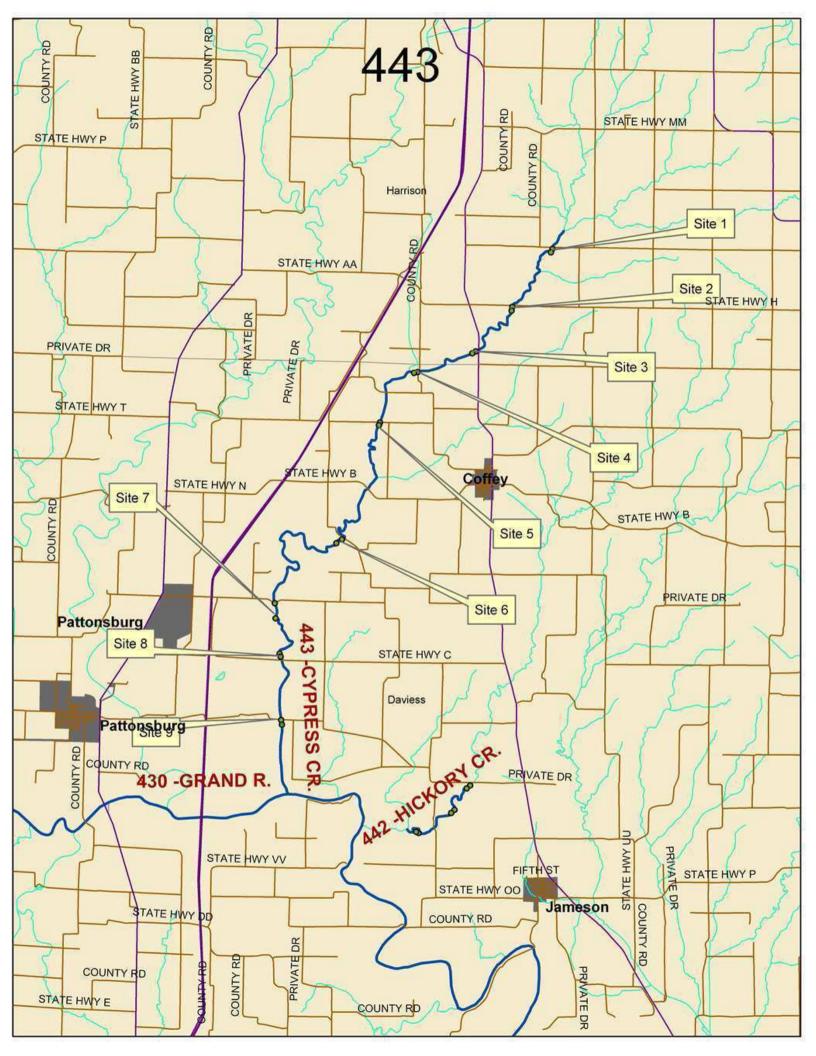
Submitted by SES Inc.

to Missouri Department of Natural Resources Water Protection Program

Date received: November 14, 2007

## Data Sheet A - Water Body Identification

	Body Infori		(For water b	ody bein	g surveyed	1)		
Water Boo	dy Name (f	rom USGS 7	.5' quad):	(	Cypress Cr	eek		
Missouri V	Vater Body	Identification	n (WBID) Num	ber:	443			
8 digit HU	C code:	10280101			County:	Daviess		
Upstream	Legal Des	cription (from	Table H):		T62N	R27W	Sec. 18	
Downstrea	am Legal D	escription (fr	om Table H):		T60N	R28W	Sec. 8	
Number o	f sites eval	uated:	9					
List all site		listed consec 5, 33, 34, 35,	quently upstrea 37, 32, 30	am to do	wnstream:			
Mark any	other items	that may be	•				sites clearly labeled.	
		Permit Num				, ,	,	
	incorrect	facility listed						
		lease print le						
Name of S	Surveyor:	Gilisa Gou	lld		Telephon	e Number:	913.307.0054	
Organizat	ion/Employ	er:	SES, Inc.					
Please ve complete	-		npleted all se	ctions, c	checked al	I applicabl 10.03.07	e boxes, and that the form is	
_					_			



WBID#	443
Site #	1

Date & Time:	9.20.07	7 17:35	j	Site Location	on Descrip	tion (e.g. road	crossing):		
Personnel:	D. Dod	son & G. Gould		380th					
Current Weatl	her Cond	ditions: clear		Facility Nar	Facility Name: ?				
Weather cond	litions fo	or the past 10 days:	no precip	Permit Num	nber:	?			
Drought condi	itions?: N	No drought ☑ ; Pha	se I □ ; Phase	ı II □ ; Phas	e III □ ; Pl	nase IV □ ; Ur	nknown 🗆		
Site Location	1:								
		(Universal Transver	se Mercator Pr	rojection, In	Meters				
Site 01	Easting	g (UTM X):	Northing (UTN	И Y):		Horizontal Ac	curacy: Me	ters	
		0416030		4446267			4.6		
Site 11	Easting	g (UTM X):	Northing (UTN	M Y):		Horizontal Ac	curacy: Me	ters	
		0415985		4446173			10.1		
		01.000	.1	1110					
Photos:	т —		<del></del>	т		<u>T</u>	Т		
Photo ID#	F	Photo Purpose	Photo ID#: Photo Purpose			Photo ID#:	Photo Purpose		
83		upstream	84 downstream						
Photo ID#	F	Photo Purpose	Photo ID#	Photo Purpose		Photo ID#	Photo Purpose		
	_								
Photo ID#	F	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose		
Uses Observ	ed:		<del>,</del>		<del> </del>				
☐ Swimming	)	☐ Skin diving	☐ SCUBA di	iving	☐ Tubin	g	☐ Water Skiing		
☐ Wind surfi	ng	☐ Kayaking	☐ Boating		□ Wadir	ng	☐ Rafting		
☐ Hunting		☐ Trapping	☐ Fishing		☑ None (	of the above	☐ Other:		
Describe:									

WBID # 443 Site # 1			
	Field Data Sheets f	<u>for Recreational Use Stream</u>	Surveys
Surrounding Condition		Site Characterization (Conti	nued)
☐ City/County parks	☐ playgrounds	☐ MDC conservation lands	□ Urban areas
☐ Campgrounds	☐ State parks	□ National Forests	☐ Nature trails
□ Boating accesses	☑ Fence	☐ No tresspass sign	☐ Steep Slopes
Comments:			

crop fields and pasture

#### **Evidence of Human Use:**

☐ Roads	☐ Foot path/prints	☐ Dock/platform	☐ Camping Sites	□ Rope swings
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Livestock watering
comments/other:				
none				

☐ Rural Residential

☐ Stairs/walkways

☑ Other:

#### Substrate:

% Cobble	% Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock
	10	90			

## **Aquatic Vegatation:**

5% duck weed at two transects; vegetated banks: willow, grasses, etc.

#### **Water Characteristics:**

Odor:	□ Sewage	☐ Musky	☐ Chemical	☑ None	☐ Other:
Color:	☑ Clear	□Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	□ Sludge	☐ Solids	☐ Fine sediments	✓ None	☐ Other:
Surface Deposit:	□ Oil	☐ Scum	□ Foam	⊠None	☐ Other:

Organization: SES, Inc.

#### Field Data Sheets for Recreational Use Stream Surveys

#### **Data Sheet B - Site Characterization (continued)**

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support recreational us	Additional Stream Mo	rphology: (Record isolated	pools or other features identified during	the survey that may support recreational uses
--	----------------------	----------------------------	---	---

Channel Feature	Distance from	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	access location (m)				
mments: (Please re	ecord any additional comments h	acro )			
·	boord arry additional commonton	iere.)			
·		iere.)			
	none	iere.)			
		iere.)			
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		ere.)			
	none				
ease verify that y			d all applicable	boxes, and that the	form is
ease verify that y	none		d all applicable	boxes, and that the	form is
	none		d all applicable	boxes, and that the	form is
ease verify that yomplete.	none		d all applicable _Date of Survey:		form is

Position: field team leader

																		Disso	lved Ox	ygen		
	Waterbo	ody ID:	443		•	Site #:	1									Date:	9.20.07			Time:	17:35	
	Estimate	ed Chann	nel Incisio	on:	3.7	(m) (hei	ight betw	een low b	ank wid	th and wa	ater)									•		
	GPS Lo	cation - I	Easting (1	UTM X)	Northin	σ (UTM	Y) Hor	izontal Ac	curacy I	Estimate	(EPE / P	DOP / FO	OM)			Di	ssorvea	Jxygen:		8.1	(mg/L)	
		UTM X	•	0416030		-			•		,	+/-	4.6	(meters)		Di	ssolved (	Oxygen:			(% sat)	
	11	UTM X		0415985	5	1	UTM Y:		4446173	3	• •	+/-	10.1	(meters)								
	Average	Stroom	Width				2.4	(meters)	т	ength of	Survey 9	Sagmant		150	(meters)		Specifi	c Cond:			(μS/cm)	
			ngth of F				2.7	(incters)		20x avera	-	-		130	(meters)	Wa	ter Temp	erature:		23.4	(°C)	
	Fiel	d Staff:	Drew	Dodson	and	Gilisa G	ould							•								
										Tra	nsect C	ross-Se	ction									
	0	1	0	2	0	3		04	(	)5	0	16		07	08	1	0	9	1	0	11	1
Station	Distance (m)		Distance		Distance (m)		Distance		Distance (m)		Distance		Distance		Distance (m)		Distance (m)		Distance (m)	-	Distance	
Station	0	Depth (m)	0	Depth (m)	0	Depth (m)	0	Depth (m)	0	Depth (m)	0	Depth (m)	0		0		0	Depth (m)	0	Depth (m)	0	Depth (m
Left Bank		0		0	U	0		0		0	_	0		0		0	U	0		0		0
1	0.1	0.05	0.6	0.05	0.1	0.01	0.2	0.01	0.2	0.01	0.1	0.01	0.1	0.01	0.2	0.01	0.5	0.01	0.5	0.10	0.3	0.05
2	0.2	0.01	1.1	0.25	0.2	0.05	0.4	0.05	0.4	0.05	0.2	0.01	0.1	0.01	0.4	0.01	0.9	0.10	0.9	0.20	0.5	0.10
3	0.3	0.01	1.7	0.00	0.3	0.05	0.5	0.05	0.5	0.01	0.3	0.05	0.2	0.01	0.5	0.01	1.4	0.15	1.4	0.30	0.8	0.20
4	0.4	0.01	2.2	0.00	0.4	0.05	0.7	0.05	0.7	0.00	0.4	0.01	0.2	0.01	0.7	0.01	1.8	0.15	1.8	0.40	1.1	0.10
5	0.5	0.05	2.8	0.00	0.5	0.05	0.9	0.01	0.9	0.00	0.5	0.01	0.3	0.00	0.9	0.01	2.3	0.15	2.3	0.40	1.4	0.10
	0.5	0.05	3.3		0.5	0.01	1.1	0.01	1.1				0.3	0.00	1.1	0.05	2.8	0.20	2.8			0.10
0																						
7	0.6	0.01	3.9	0.00	0.6	0.01	1.3	0.01	1.3	0.01	0.6	0.01	0.4	0.00	1.3	0.01	3.2	0.20	3.2		1.9	0.10
8	0.7	0.00	4.4	0.10	0.7	0.01	1.4	0.01	1.4	0.01	0.7	0.01	0.4	0.00	1.4	0.01	3.7	0.20	3.7	0.40	2.2	0.05
9	0.8	0.00	5.0	0.05	0.8	0.01	1.6	0.01	1.6	0.01	0.8	0.01	0.5	0.01	1.6	0.01	4.1	0.05	4.1	0.25	2.4	0.05
Right Bank	0.9	0.00	5.5	0.00	0.9	0.00	1.8	0.00	1.8	0.00	0.9	0.00	0.5	0.00	1.8	0.00	4.6	0.00	4.6	0.00	2.7	0.00
Feature Type																						
riffle, run, or pool	ı rı	ın	ru	ın	ru	ın	r	un	rı	ın	rı	ın	r	un	ru	1	ru	n	po	ol	ru	n

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing weted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: gilisa gould Date: 11.12.07	
-------------------------------------	--

WBID#	443
Site #	2

<u> </u>		_					
Date & Time:	9.20.07	16:25		Site Location	on Descrip	tion (e.g. road	crossing):
Personnel:	D. Dods	son & G. Gould			Highway I	Н	
Current Weath	ner Cond	ditions: clear		Facility Nar	ne:	incorrect	
Weather cond	itions fo	r the past 10 days: r	no precip	Permit Num	nber:		
Drought condi	tions?: N	No drought ☑ ; Pha	se I □ ; Phase	⊧II □ ; Phas	e III □ ; Pl	nase IV 🗆 ; Uı	nknown 🗆
Site Location							
		(Universal Transver			Meters		
Site 01	Easting	ı (UTM X):	Northing (UTN	· · · · · · · · · · · · · · · · · · ·		Horizontal Ac	•
		0414939	<del> </del>	4444695			4.9
Site 11	Easting	ı (UTM X):	Northing (UTN	И Y):		Horizontal Ac	ccuracy: Meters
		0414922		4444586			9.4
Photos:							
Photo ID#	F	Photo Purpose	Photo ID#:	Photo F	Purpose	Photo ID#:	Photo Purpose
81	upstrea	ım	82	downstrear	n		
Photo ID#	F	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose
Photo ID#		Photo Purpose	Photo ID#	Photo F	Purnose	Photo ID#	Photo Purpose
1 11000 12.1		note i dipess	1 11000 12.1	1 11010 1	игросс	1 11000 121.	1 Hoto I diposo
	<u>[</u>		<u> </u>	<u> </u>		l	
Uses Observe	ed:						
☐ Swimming		☐ Skin diving	☐ SCUBA di	iving	☐ Tubin	g	☐ Water Skiing
☐ Wind surfi	ng	☐ Kayaking	☐ Boating		☐ Wadir	ng	☐ Rafting
☐ Hunting		☐ Trapping	☐ Fishing		☑ None	of the above	☐ Other:
Describe:							

WBID#	443
Site #	

#### **Data Sheet B- Site Characterization (Continued)**

			,			
Surrounding Conditi	ions:					
☐ City/County parks	☐ playgrounds	☐ MDC conservati	on lands 🔲 Urb	an areas	☐ Rural Resident	ial
☐ Campgrounds	☐ State parks	□ National Forests		ure trails	☐ Stairs/walkway	'S
☐ Boating accesses	☐ Fence	☐ No tresspass sig	ın □ Stee	ep Slopes	☑ Other:	
Comments:				·		
pasture						İ
Evidence of Human	Use:					
□ Roads	☐ Foot path/prints	☐ Dock/platform	☐ Can	nping Sites	☐ Rope swings	
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharg		ning Tackle	☐ Livestock wate	ring
comments/other:	<u>-</u>					
none						
Substrate:						
% Cobble	% Gravel	% Sand	% Silt	% Mud/C	Clay % Bedi	rock
	10	60	25	5	•	
Aquatic Vegatation:						
100/ olgo	I I					
10% algae	blooms					
<u> </u>						
Water Characteristic	s:					
Odor:	☐ Sewage	☐ Musky	☐ Chemical	<b>☑</b> N	None ☐ Oth	er:
Color:	☐ Clear	☑Green	☐ Gray		Milky ☑ Oth	er:
				· · · · · · · · · · · · · · · · · · ·	brown	
Bottom Deposit:	☐ Sludge	□ Solids	☐ Fine sedimen		None	
Surface Deposit:	☑ Oil	☐ Scum	☐ Foam	□N	lone □ Oth	er:

#### Field Data Sheets for Recreational Use Stream Surveys

#### **Data Sheet B - Site Characterization (continued)**

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support recreational uses)

Channel Feature

Distance from

Width (m)

Length (m)

Median Depth (m)

Max Depth (m)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	access location (III)				
			•		
Comments: (Please re	cord any additional comments I	nere.)			1
none					
Please verify that yo	ou have completed all s	ections, checke	ed all applicable	boxes, and that the	form is
complete.	·		- •		
Surveyor's Signature:	Gilisa Gould		_Date of Survey:	9.20.07	
Organization:	SES, Inc		Position:	Field Team Leader	

																		Disso	Ived Ox	ygen		
	Waterbo	ody ID:	443			Site #:	2		ı							Date:	9.20.07			Time:	16:25	
				,				reen low b								D	issolved	Oxygen:		6.9	(mg/L)	
	01	cation - I UTM X UTM X	:	UTM X). 0414939 0414922	)	. 1	Y), Hori UTM Y: UTM Y:		ecuracy I 444469: 4444580	5		DOP / FO +/- +/-	OM) 4.9 9.4	(meters)	•	D:	issolved	Oxygen:			(% sat)	
						•		(meters)		ength of	•			(meters)	(meters)		Specif	ic Cond:			(µS/cm)	
	_		ngth of F	Reach)			4.3	(illeters)		20x avera	•	•		130	(meters)	Wa	ater Tem	perature:		23	(°C)	
	Fiel	d Staff:	Drew	Dodson	and	Gilisa G	ould															
										Tra	nsect C	ross-Se	ction									
	0	1		2		3		04		)5		6		07	0	8		)9	1	0	1	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)		Distance (m)	Depth (m)	Distance (m)	Depth (m)		Depth (m)
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.6	0.20	0.6	0.05	0.7	0.05	0.5	0.05	0.5	0.05	0.5	0.05	0.3	0.05	0.2	0.05	0.27	0.05	0.4	0.05	0.6	0.01
2	1.3	0.45	1.1	0.20	1.5	0.10	0.9	0.20	0.9	0.10	0.9	0.10	0.5	0.10	0.4	0.15	0.54	0.01	0.7	0.10	1.1	0.05
3	1.9	0.50	1.7	0.30	2.2	0.10	1.4	0.15	1.4	0.10	1.4	0.10	0.8	0.15	0.5	0.10	0.81	0.05	1.1	0.15	1.7	0.10
4	2.6	0.55	2.2	0.40	2.9	0.10	1.8	0.20	1.8	0.05	1.8	0.10	1.1	0.10	0.7	0.05	1.08	0.10	1.5	0.20	2.2	0.15
5	3.2	0.40	2.8	0.50	3.7	0.10	2.3	0.25	2.3	0.10	2.3	0.10	1.4	0.06	0.9	0.05	1.35	0.10	1.9	0.20	2.8	0.20
6	3.8	0.25	3.3	0.20	4.4	0.15	2.8	0.30	2.8	0.01	2.8	0.10	1.6	0.01	1.1	0.10	1.62	0.10	2.2	0.10	3.3	0.30
7	4.5	0.05	3.9	0.15	5.1	0.20	3.2	0.40	3.2	0.00	3.2	0.15	1.9	0.05	1.3	0.05	1.89	0.10	2.6	0.10	3.9	0.50
8	5.1	0.05	4.4	0.05	5.8	0.20	3.7	0.30	3.7	0.00	3.7	0.10	2.2	0.05	1.4	0.05	2.16	0.05	3.0	0.05	4.4	0.30
9	5.8	0.01	5.0	0.01	6.6	0.05	4.1	0.05	4.1	0.10	4.1	0.05	2.4	0.05	1.6	0.05	2.43	0.05	3.3	0.05	5.0	0.10
ight Bank	6.4	0.00	5.5	0.00	7.3	0.00	4.6	0.00	4.6	0.00	4.6	0.00	2.7	0.00	1.8	0.00	2.7	0.00	3.7	0.00	5.5	0.00
eature Type	ро	ool	рс	ool	rı	ın	r	un	rı	un	rı	ın	r	un	ru	ın	m	un	ru	ın	ru	n
Natara	Tourne	11 1	ad baginnin			(O donth) on		n right dassans		donth) This		wattad width		·	10		1	<b>.</b> ,,,,	10		Tu	

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted widt

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

0.55 MAXIMUM

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

0.10 MEDIAN

 $Mark\ dry\ depth\ measurements\ as\ 0;\ record\ actual\ measurements\ to\ 0.01\ meter\ unless\ depth\ is\ too\ deep\ to\ measure\ (then\ record\ as\ {\it >}\ 1)$ 

All measurements to be taken to the nearest 0.01 meter.

Signed: gilisa gould Date: 10.18.07
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WBID#	443
Site #	3

Date & Time:	9.20.07	' 18:25		Site Location	on Descrip	tion (e.g. road	crossing):
Personnel:	D. Dods	son & G. Gould			Highway '	13	
Current Weat	her Cond	ditions: clear		Facility Nar	me:	?	
Weather cond	litions fo	r the past 10 days: r	no precip.	Permit Nun	nber:	?	
Drought cond	itions?: N	No drought ☑ ; Pha	se I □ ; Phase	Ⅱ 🛭 ; Phas	e III □ ; PI	nase IV □ ; Ur	nknown 🗆
-							
Site Location							
		(Universal Transver	se Mercator Pr	rojection, In	Meters		
Site 01	Easting	(UTM X):	Northing (UTN	И Y):		Horizontal Ac	curacy: Meters
		0413947		4443484			2.7
Site 11	Easting	ı (UTM X):	Northing (UTN	И Y):		Horizontal Ac	curacy: Meters
		0413854	,	4443430			3.7
	<u> </u>	0413034		4443430			3.1
Photos:							
Photo ID#	F	Photo Purpose	Photo ID#:	Photo F	Purpose	Photo ID#:	Photo Purpose
86		downstream	87	upstream			
Photo ID#	F	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose
Photo ID#	F	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose
Uses Observ	ed:						
☐ Swimming		☐ Skin diving	☐ SCUBA di	ivina	☐ Tubin	<u> </u>	☐ Water Skiing
☐ Wind surfi	,	☐ Kayaking	☐ Boating		□ Wadir		☐ Rafting
☐ Hunting	<u> </u>	☐ Trapping	☐ Fishing			of the above	☐ Other:
Describe:		п парріпу	L Histiling		E None	of the above	Duller.

WBID#	443
Site #	3

### **Data Sheet B- Site Characterization (Continued)**

	Data Sileet D-	one Characterizatio	ii (Colliii	iueu)	
Surrounding Conditi	ons:				
☐ City/County parks	□ playgrounds	☐ MDC conservation	on lands	☐ Urban areas	☐ Rural Residential
☐ Campgrounds	☐ State parks	□ National Forests		☐ Nature trails	☐ Stairs/walkways
☐ Boating accesses	☐ Fence	☐ No tresspass sig	n	☐ Steep Slopes	☑ Other:
Comments:	•		•	· · · ·	•
crop fields	and pasture				
Evidence of Human		<u> </u>			1 — -
☐ Roads	☐ Foot path/prints	☐ Dock/platform		☐ Camping Sites	☐ Rope swings
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharg	е	☐ Fishing Tackle	☐ Livestock watering
comments/other:					
nono					
none					
Substrate:					
% Cobble	% Gravel	% Sand	% Silt	% Mud/(	Clay % Bedrock
	20	70	10		•
<b>Aquatic Vegatation:</b>					
90% algae blooms in v			d mosses	on substrate	
that is in channel but s	sits above water leve				
Water Characteristic					
Odor:	☐ Sewage	□ Musky	☐ Chem		None ☐ Other:
Color:	□ Clear	☑Green	☐ Gray		Milky ☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids			None ☐ Other:
Surface Deposit:	☑ Oil	☐ Scum	☐ Foam	ПN	lone ☐ Other:

#### Field Data Sheets for Recreational Use Stream Surveys

## **Data Sheet B - Site Characterization (continued)**

Additional Stream Morp	hology:	(Record isolated pools or othe	r features identified during	the survey that may	support recreational uses)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	acces iceation (iii)				
_					
omments: (Please red	cord any additional comments h	nere.)			
	none				
lease verify that yo omplete.	ou have completed all s	ections, checke	d all applicable	boxes, and that the	form is
omplete.	ou have completed all so				form is

																		Disso	Ived Ox	xygen		
		ody ID: ed Chanr		on:				reen low b	onk wid	th and w	otor)					Date:	9.20.07			Time:	18:25	
												D OD / D				Di	issolved	Oxygen:		10.2	(mg/L)	
	GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOM)         01       UTM X:       0413947       UTM Y:       4443484       +/-       2.7       (meters)         11       UTM X:       0413854       UTM Y:       4443430       +/-       3.7       (meters)											Di	issolved	Oxygen:	:(% sat)							
	Average	e Stream	Width:			•	_	(meters)		ength of	•	-		150	(meters)	<b>W</b> .					(μS/cm)	
		ermne Le		odson	and	Gilisa G	ould			20x avera	ige streat	n widin)				vv a	iter Temj	perature:		22.1	('C)	
										Tra	nsect C	ross-Se	ction									
	0	1	0	)2	0	3	(	04	0	)5	0	6	(	07	0:	8	0	9	1	0	1	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m
eft Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.6	0.05	0.6	0.05	0.7	0.05	1.0	0.05	0.8	0.10	1.0	0.01	0.6	0.01	0.8	0.05	0.7	0.01	0.6	0.01	0.2	0.01
2	1.1	0.10	1.3	0.15	1.5	0.10	2.0	0.25	1.6	0.30	2.0	0.05	1.3	0.01	1.6	0.15	1.5	0.15	1.1	0.01	0.4	0.05
3	1.7	0.20	1.9	0.25	2.2	0.15	3.0	0.55	2.5	0.30	3.0	0.01	1.9	0.05	2.5	0.20	2.2	0.15	1.7	0.01	0.5	0.05
4	2.2	0.25	2.6	0.30	2.9	0.25	4.0	0.80	3.3	0.40	4.0	0.01	2.6	0.01	3.3	0.35	2.9	0.15	2.2	5.00	0.7	0.05
5	2.8	0.25	3.2	0.35	3.7	0.30	5.1	0.65	4.1	0.45	5.1	0.05	3.2	0.00	4.1	0.30	3.7	0.05	2.8	0.01	0.9	0.05
6	3.3	0.25	3.8	0.40	4.4	0.30	6.1	0.35	4.9	0.50	6.1	0.15	3.8	0.00	4.9	0.35	4.4	0.00	3.3	0.05	1.1	0.01
7	3.9	0.15	4.5	0.45	5.1	0.40	7.1	0.30	5.7	0.55	7.1	0.10	4.5	0.00	5.7	0.36	5.1	0.00	3.9	0.01	1.3	0.01
8	4.4	0.10	5.1	0.45	5.8	0.35	8.1	0.33	6.6	0.40	8.1	0.15	5.1	0.05	6.6	0.30	5.8	0.00	4.4	0.05	1.4	0.01
9	5.0	0.05	5.8	0.05	6.6	0.05	9.1	0.30	7.4	0.20	9.1	0.05	5.8	0.10	7.4	0.30	6.6	0.10	5.0	0.05	1.6	0.01
ight Bank	5.5	0.00	6.4	0.00	7.3	0.00	10.1	0.00	8.2	0.00	10.1	0.00	6.4	0.00	8.2	0.00	7.3	0.00	5.5	0.00	1.8	0.00
eature Type	***								ffle	ru	n	\$63	ın	**1	ın	***	ın.					
ffle, run, or pool		ill be measur		un von left desc		in (0 depth) an		OOl n right descend	_					1110	10	11	ru	111	П	ın	ru	111

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

5.00 MAXIMUM

0.1 MEDIAN

Signed: gilisa gould Date: 10.18.07	
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WBID#	443
Site #	4

Date & Time:	9.20.07	7 19:10	)	Site Location	on Descrip	tion (e.g. road	crossing):			
Personnel:	D. Dod	son & G. Gould		E. 210 Ave.						
Current Weat	her Cond	ditions: clear		Facility Name: ?						
Weather cond	litions fo	r the past 10 days:	no precip.	Permit Nun	nber:	?				
Drought cond	itions?: I	No drought ☑ ; Pha	ıse I □ ; Phase	e II □ ; Phas	e III □ ; Pl	hase IV □ ; Ur	nknown 🗆			
Site Location	n:									
		(Universal Transver	rse Mercator Pr	rojection, In	Meters					
Site 01	Easting	ı (UTM X):	Northing (UTN	M Y):		Horizontal Ac	ccuracy:	Meters		
		0412365		4442920				4.0		
Site 11	Easting	(UTM X):	Northing (UTN	M Y):		Horizontal Ac	curacy:	Meters		
		0412272		4442900				6.7		
	U41ZZ1Z 444Z3UU 6./									
Photos:	1			<u> </u>		<u> </u>	1			
Photo ID#	F	Photo Purpose	Photo ID#: Photo Purpos			Photo ID#:	Photo Purp	ose		
88		downstream	89	upstream						
Photo ID#	F	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purp	ose		
Photo ID#	F	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purp	ose		
Uses Observ	ed:	_					_			
☐ Swimming	l	☐ Skin diving	☐ SCUBA di	iving	☐ Tubin	g	☐ Water Skiing			
☐ Wind surfi	ng	☐ Kayaking	☐ Boating		☐ Wadir	ng	☐ Rafting			
☐ Hunting		☐ Trapping	☐ Fishing		☑ None	of the above	☐ Other:			
Describe:										

WBID#	443
Site #	4

		•	Data Sheet B- Site Characterization (Continued)							
Surrounding Conditi	ons:									
☐ City/County parks	☐ playgrounds	☐ MDC conservation la	ands □ Urban	areas	☐ Rural Residential					
☐ Campgrounds	☐ State parks	☐ National Forests	☐ Nature	trails	☐ Stairs/walkways					
☐ Boating accesses	☐ Fence	☐ No tresspass sign	☐ Steep :	Slopes	☑ Other:					
Comments:										
crop land										
Evidence of Human I	lse.									
□ Roads	☐ Foot path/prints	☐ Dock/platform	☐ Campir	ng Sites	☐ Rope swings					
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing		☐ Livestock watering					
comments/other:	<u> </u>				<u> </u>					
none										
Substrate:										
Substrate: % Cobble	% Gravel	% Sand %	Silt	% Mud/0	Clav % Bedrock					
Substrate: % Cobble	% Gravel		Silt 30	% Mud/0						
	% Gravel									
	% Gravel									
% Cobble	% Gravel									
% Cobble  Aquatic Vegatation:	% Gravel	40								
% Cobble  Aquatic Vegatation:		40								
% Cobble  Aquatic Vegatation:		40								
% Cobble  Aquatic Vegatation:  30% algae	blooms at all transe	40								
% Cobble  Aquatic Vegatation:  30% algae  Water Characteristic	blooms at all transe	40 cts	30	30						
% Cobble  Aquatic Vegatation:  30% algae	blooms at all transe	40 cts		30 ☑ 1						
% Cobble  Aquatic Vegatation:  30% algae  Water Characteristic Odor:	e blooms at all transe s: □ Sewage	d0  cts  ☐ Musky ☐ C ☐ Green ☑ C ☐ Solids ☑ F	30 Chemical	30 ☑ N	None □ Other:					

Organization: SES, Inc

### Field Data Sheets for Recreational Use Stream Surveys

## **Data Sheet B - Site Characterization (continued)**

Additional Stream Me	orpholo	ogy: (Record isolated p	pools or other features identified during	g the survey that may support recreational uses)
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	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	access location (III)				
	1	<u> </u>	1	<u> </u>	
mments: (Please re	ecord any additional comments	here.)			
	none				
ease verify that yo mplete.	ou have completed all s	ections, checke	d all applicable	boxes, and that the	form is

Position: field team leader

																		Disso	ivea Ox	ygen		
	Waterbo	ody ID:	443			Site #:	4									Date:	9.20.07			Time:	19:10	
	Estimate	ed Chanr	nel Incisi	on:	0.6	(m) (hei	ight betw	een low b	ank wid	th and wa	ater)					Di	ssolved	Oxygen:		4.2	(mg/L)	
	01	UTM X	:	0412365	5	. 1	UTM Y:		4442920	0	_	+/-	4	(meters)		Di	ssolved	Oxygen:			(% sat)	
	11	UTM X	<u> </u>	0412272	2	. 1	UTM Y:		4442900	0	•	+/-	6.7	(meters)			Specifi	ic Cond:			(μS/cm)	
	Average						4.6	(meters)		ength of	,	0		150	(meters)			•				
	(To dete	rmne Le	ngth of I	Reach)					(2	20x avera	ige strear	n width)				Wa	ter Temp	perature:		23.8	(°C)	
	Fiel	d Staff:	Drew D	odson an	d Gilisa	Gould																
										Tra	nsect C	ross-Se	ction									
	0	1	0	)2	0	3	(	)4	O	)5	0	6		)7	0	8	0	9	1	0	1:	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.6	0.05	0.6	0.55	0.8	0.10	0.4	0.01	0.6	0.01	0.6	0.05	0.4	0.20	0.2	0.05	0.2	0.01	0.3	0.05	0.3	0.05
2	1.3	0.20	1.3	0.65	1.6	0.70	0.7	0.05	1.3	0.05	1.3	0.01	0.7	0.25	0.4	0.05	0.4	0.05	0.5	0.10	0.5	0.10
3	1.9	0.20	1.9	0.90	2.5	0.95	1.1	0.05	1.9	0.10	1.9	0.05	1.1	0.30	0.5	0.05	0.5	0.05	0.8	0.10	0.8	0.10
4	2.6	0.35	2.6	0.85	3.3	0.95	1.5	0.05	2.6	0.10	2.6	0.15	1.5	0.30	0.7	0.05	0.7	0.10	1.1	0.05	1.1	0.15
5	3.2	0.50	3.2	0.50	4.1	0.80	1.9	0.05	3.2	0.20	3.2	0.20	1.9	0.30	0.9	0.05	0.9	0.10	1.4	0.01	1.4	0.20
6	3.8	0.40	3.8	0.50	4.9	0.65	2.2	0.05	3.8	0.25	3.8	0.25	2.2	0.25	1.1	0.05	1.1	0.10	1.6	0.01	1.6	0.25
7	4.5	0.40	4.5	0.35	5.7	0.50	2.6	0.05	4.5	0.25	4.5	0.30	2.6	0.15	1.3	0.10	1.3	0.10	1.9	0.01	1.9	0.20
8	5.1	0.30	5.1	0.30	6.6	0.30	3.0	0.05	5.1	0.25	5.1	0.40	3.0	0.05	1.4	0.05	1.4	0.01	2.2	0.01	2.2	0.10
9	5.8	0.20	5.8	0.10	7.4	0.15	3.3	0.05	5.8	0.10	5.8	0.15	3.3	0.01	1.6	0.05	1.6	0.05	2.4	0.01	2.4	0.05
ght Bank	6.4	0.00	6.4	0.00	8.2	0.00	3.7	0.00	6.4	0.00	6.4	0.00	3.7	0.00	1.8	0.00	1.8	0.00	2.7	0.00	2.7	0.00
eature Type																						
iffle, run, or pool	run pool pool run run run run run run  Transects will be measured beginning on left descending bank (0 denth) and finishing on right descending bank (0 denth). This width is the wetted width						ru	ın	ru	ın	ru	ın	ru	n								

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

7.38 MAXIMUM

1.85 MEDIAN

Signed: gilisa gould Date: 10.18.07

WBID#	443
Site #	5

Date & Time:	9.21.07	8:45		Site Location	on Descrip	tion (e.g. road	crossing):			
Personnel:	D. Dods	son & G. Gould		Beacon						
Current Weatl	ner Cond	ditions: clear		Facility Name: ?						
Weather cond	litions fo	r the past 10 days: r	no precip	Permit Nun	nber:	?				
Drought condi	itions?: N	No drought ☑ ; Pha	se I □ ; Phase	II □ ; Phas	e III □ ; PI	nase IV □ ; Ur	nknown 🗆			
		<del>-</del>								
Site Location:										
		(Universal Transver	se Mercator Pr	rojection, In	Meters					
Site 01	Easting	(UTM X):	Northing (UTN	М Y):		Horizontal Ac	curacy: Meters			
		0411345		4441556			5.2			
Site 11	Easting	(UTM X):	Northing (UTN	M Y):		Horizontal Ac	curacy: Meters			
		0411320	, J	•			5.8			
		0411320		4441482			0.0			
Photos:						_				
Photo ID#	F	Photo Purpose	Photo ID#: Photo Purpose			Photo ID#:	Photo Purpose			
90	downst	ream	91	upstream						
Photo ID#	F	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose			
Photo ID#	P	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose			
Uses Observ	ed:									
☐ Swimming		☐ Skin diving	☐ SCUBA di	ivina	☐ Tubin	a	☐ Water Skiing			
☐ Wind surfi		☐ Kayaking	☐ Boating		□ Wadir		☐ Rafting			
☐ Hunting	<u> </u>	☐ Trapping	☐ Fishing			<u> </u>	☐ Other:			
Describe:		п парріпу	L Fishing	✓ None of the above			Duner.			

WBID#	443
Site #	5

## **Data Sheet B- Site Characterization (Continued)**

<b>Surrounding Condit</b>	ions:	- <u></u> -		
☐ City/County parks	☐ playgrounds	☐ MDC conservation lands		☐ Rural Residential
☐ Campgrounds	☐ State parks	□ National Forests	☐ Nature trails	☐ Stairs/walkways
☐ Boating accesses	☐ Fence	☐ No tresspass sign	☑ Steep Slopes	☑ Other:
Comments:				
pasture and crop field	ls			
Evidence of Human	II.			
		□ Daaldalatform	T Comming Citor	I Dana awinga
☐ Roads ☐ RV/ATV Tracks	☐ Foot path/prints	☐ Dock/platform	☐ Camping Sites	☐ Rope swings ☐ Livestock watering
Comments/other:	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	Livestock watering
comments/outer.				
none				
Hono				
Substrate:				
Substrate: % Cobble	% Gravel	% Sand % Silt	% Mud/0	Clay % Bedrock
	% Gravel	% Sand % Silt 90	% Mud/0 10	-
% Cobble				-
				-
% Cobble  Aquatic Vegatation:				-
% Cobble				-
% Cobble  Aquatic Vegatation:				-
% Cobble  Aquatic Vegatation:				-
% Cobble  Aquatic Vegatation:  80% algae	e blooms			-
% Cobble  Aquatic Vegatation:  80% algae  Water Characteristic	e blooms	90	10	
% Cobble  Aquatic Vegatation: 80% algae  Water Characteristic Odor:	e blooms cs:	90	10 nical ☑ ſ	None □ Other:
% Cobble  Aquatic Vegatation:  80% algae  Water Characteristic	e blooms	90	10 nical ☑ ſ	None □ Other: Milky ☑ Other:
% Cobble  Aquatic Vegatation: 80% algae  Water Characteristic Odor:	e blooms cs:	90  Musky □ Chen □ Green □ Gray	10 nical ☑ ſ	None □ Other:

Organization: SES, Inc.

#### Field Data Sheets for Recreational Use Stream Surveys

#### **Data Sheet B - Site Characterization (continued)**

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support recreational use	Additional Stream Morph	iology: (Record isolated)	pools or other features identified during	the survey that may support recreational uses
---	-------------------------	---------------------------	---	---

Channel Feature	Distance from	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	access location (m)				
mmente: (Please r	ecord any additional comments l	horo \			
illinelita. (Flease fe	ecoru arry additional comments i	nere.)			
	none				
	none ou have completed all s	ections, checke	d all applicable	boxes, and that the	form is
		ections, checke	d all applicable	boxes, and that the	form is
		ections, checke	d all applicable	boxes, and that the t	form is
omplete.		ections, checke	ed all applicable _Date of Survey:		form is

Position: field team leader

																		Disso	lved Ox	ygen		
							5									Date:	9.21.07			Time:	8:45	
								een low b								Di	ssolved	Oxygen:		3.7	(mg/L)	
	01	UTM X	:	0411345	5	. 1	UTM Y:		444155	6	•	DOP / FO +/- +/-	5.2	(meters)		Di	ssolved	Oxygen:			(% sat)	
		UTM X		0411320		•					•		5.8	(meters)			Specifi	c Cond:			(µS/cm)	
		e Stream ermne Le		Reach)			4.6	(meters)		_	-	Segment: m width)		150	(meters)	Wa	ter Temp	perature:		20.4	(°C)	
	Fiel	d Staff:	Drew D	odson an	d Gilisa	Gould																
										Tra	nsect C	ross-Se	ction									
	0	11 02 03 04 05 06 07 08 09 10											11	1								
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.6	0.01	0.1	0.00	0.3	0.05	0.1	0.00	0.1	0.01	0.8	0.15	0.3	0.00	0.7	0.01	0.8	0.01	0.7	0.05	0.7	0.05
2	1.1	0.05	0.1	0.00	0.5	0.15	0.1	0.00	0.1	0.01	1.6	0.50	0.5	0.00	1.5	0.45	1.6	0.35	1.5	0.15	1.5	0.20
3	1.7	0.15	0.2	0.00	0.8	0.10	0.2	0.00	0.2	0.01	2.5	0.10	0.8	0.00	2.2	0.60	2.5	0.30	2.2	0.20	2.2	0.30
4	2.2	0.20	0.2	0.00	1.1	0.15	0.2	0.00	0.2	0.01	3.3	0.00	1.1	0.00	2.9	0.60	3.3	0.40	2.9	0.30	2.9	0.40
5	2.8	0.10	0.3	0.00	1.4	0.25	0.3	0.00	0.3	0.01	4.1	0.05	1.4	0.00	3.7	0.60	4.1	0.25	3.7	0.45	3.7	0.50
6	3.3	0.10	0.3	0.00	1.6	0.20	0.3	0.00	0.3	0.01	4.9	0.35	1.6	0.00	4.4	0.50	4.9	0.15	4.4	0.40	4.4	0.50
7	3.9	0.05	0.4	0.00	1.9	0.10	0.4	0.00	0.4	0.01	5.7	0.50	1.9	0.00	5.1	0.21	5.7	0.25	5.1	0.30	5.1	0.30
8	4.4	0.05	0.4	0.00	2.2	0.10	0.4	0.00	0.4	0.01	6.6	0.40	2.2	0.00	5.8	0.10	6.6	0.20	5.8	0.25	5.8	0.10
9	5.0	0.05	0.5	0.00	2.4	0.05	0.5	0.00	0.5	0.05	7.4	0.10	2.4	0.00	6.6	0.10	7.4	0.05	6.6	0.05	6.6	0.05
ight Bank	5.5	0.00	0.5	0.00	2.7	0.00	0.5	0.00	0.5	0.00	8.2	0.00	2.7	0.00	7.3	0.00	8.2	0.00	7.3	0.00	7.3	0.00
eature Type												va1							<b>.</b>			
iffle, run, or pool Notes:		IN ill be measur		n on left desc	ru ending bank			un right descend		un denth). This		ool wetted width	_	un	ru	111	ru	111	ru	Ш	ru	11

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

0.60 MAXIMUM

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

0.05 MEDIAN

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: gilisa gould Date: 10.18.07
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WBID#	443
Site #	6

Date & Time:	9.21.07		9:50	Site Location	on Descrip	tion (e.g. road	crossing):			
Personnel:	D. Dods	son & G. Gould		185th						
Current Weatl	ner Cond	ditions: clear		Facility Name: ?						
Weather cond	litions fo	r the past 10 days: r	no precip	Permit Number: ?						
Drought condi	itions?: N	No drought ☑ ; Phas	se I □ ; Phase	II □ ; Phas	e III □ ; Pl	nase IV □ ; Ur	nknown 🗆			
Site Location	):									
		(Universal Transver	se Mercator Pr	rojection, In	Meters					
Site 01	Easting	(UTM X):	Northing (UTN	И Y):		Horizontal Ac	curacy: Meter			
		0410312		4438376			7.6			
Site 11	Easting	(UTM X):	Northing (UTN	Л Y):		Horizontal Ac	curacy: Meter			
		0410160		4438279			6.4			
	<u> </u>	0410100		4400270			0.1			
Photos:	1		T	1		1	T			
Photo ID#	F	Photo Purpose	Photo ID#:	Photo F	Purpose	Photo ID#:	Photo Purpose			
92		upstream	93	downstrear	n	94	livestock watering			
Photo ID#	P	hoto Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose			
95		livestock watering								
Photo ID#	P	hoto Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose			
Uses Observ	ed:									
☐ Swimming	l	☐ Skin diving	☐ SCUBA di	iving	☐ Tubing	g	☐ Water Skiing			
☐ Wind surfi	ng	☐ Kayaking	☐ Boating		□ Wadir	ng	☐ Rafting			
☐ Hunting		☐ Trapping	☐ Fishing		☑ None o	of the above	☐ Other:			
Describe:										

WBID#	443
Site #	6

### **Data Sheet B- Site Characterization (Continued)**

	2414 011001 2		(00	iuou,		
Surrounding Condition	ons:					
☐ City/County parks	☐ playgrounds	☐ MDC conservation	n lands	☐ Urban areas	☑ Rural F	Residential
☐ Campgrounds	☐ State parks	□ National Forests		☐ Nature trails	☐ Stairs/v	valkways
☐ Boating accesses	☑ Fence	☑ No tresspass sign	n	☑ Steep Slopes	☑ Other:	
Comments:			-	•		
fence crosses stream						
crop fields						
pasture						
Evidence of Human l						
☐ Roads	☐ Foot path/prints	☐ Dock/platform		☐ Camping Sites	☐ Rope s	
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	е	☐ Fishing Tackle	☑ Livesto	ck watering
comments/other:				<del></del>		
none						
<b>2</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
Substrate:	2, 2	^′ ^ 1	24 034	0/ 14 1/	201	^/ B
% Cobble	% Gravel	% Sand	% Silt	% Mud/		% Bedrock
		70		10	)	20
A						
Aquatic Vegatation:						
700/		. (				
70% vegetated on ban	iks; no vegetation in	water				
Water Characteristics						
		□ Marolov	☐ Chemi	:! [7]	None	☐ Other:
Odor:	□ Sewage □ Clear					
Color:	Li Clear	□Green	☑ Gray	[¥]	Milky	☑ Other:
Dattam Danasiti	□ Cludgo	□ Solids	☐ Fine se	adimonto [7]	None	brown  ☐ Other:
Bottom Deposit:	☐ Sludge ☑ Oil		☐ Fine se		None None	☐ Other:
Surface Deposit:	<u> </u>	□ Scuiii	⊔ гоанн		vone	□ Other.

Organization: SES, Inc

#### Field Data Sheets for Recreational Use Stream Surveys

## **Data Sheet B - Site Characterization (continued)**

Additional Stream	Morphology:	(Record isolated pools	or other features identified d	ring the survey that ma	av support recreational uses)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
mments: (Please re	ecord any additional comments	here.)			
Time (i lease is					
THE COLOR OF THE C					
	none				
, outer (					
······································					
	none				
			ed all applicable	boxes, and that the	form is

Position: field team leader

																		Disso	Ived Ox	ygen		
	Waterbo	ody ID:	443			Site #:	6									Date:	9.21.07			Time:	9:50	
	Estimate	ed Chann	nel Incisi	on:	3.0	(m) (hei	ght betw	een low b	ank widt	th and wa	ater)					Di	ssolved (	Oxygen:		6	(mg/L)	
		cation - I UTM X	•	UTM X) 0410312		-	Y), Hori UTM Y:	izontal Ac	curacy F 4438376		•		OM) 7.6	(meters)		Di	ssolved (	Oxygen:			(% sat)	
	11	UTM X	•	0410160					4438279	)		+/-	6.4	(meters)				'			(µS/cm)	
							12.6	(meters)		_	Survey S	-		253	(meters)	***						
	(To dete	ermne Le	ngth of I	Reach)					(2	Ox avera	ge strear	n width)				Wa	ter Temp	erature:		20.6	(°C)	
	Fiel	d Staff:	Drew	Dodson		and	Gilisa G	ould														
										Tra	nsect C	ross-Se	ction									
	0	1	0	2	0	3	(	)4	0	5	0	6	(	07	08	3	0	9	1	0	11	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1.3	0.25	1.2	0.15	1.4	0.30	1.4	0.10	1.5	0.10	1.4	0.15	1.2	0.05	1.4	0.05	1.2	0.05	0.7	0.01	1.4	0.05
2	2.6	0.50	2.4	0.50	2.7	0.70	2.7	0.30	2.9	0.60	2.7	0.45	2.4	0.15	2.7	0.20	2.4	0.40	1.5	0.10	2.7	0.05
3	3.8	0.45	3.6	0.40	4.1	0.80	4.1	0.35	4.4	0.55	4.1	0.50	3.6	0.00	4.1	0.40	3.6	0.55	2.2	0.20	4.1	0.05
4	5.1	0.45	4.8	0.35	5.5	0.85	5.5	0.40	5.8	0.40	5.5	0.50	4.8	0.00	5.5	0.85	4.8	0.55	2.9	0.30	5.5	0.15
5	6.4	0.40	6.0	0.40	6.9	0.85	6.9	0.45	7.3	0.30	6.9	0.40	6.0	0.05	6.9	1.00	6.0	0.55	3.7	0.20	6.9	0.20
6	7.7	0.40	7.1	0.45	8.2	0.85	8.2	0.65	8.8	0.50	8.2	0.20	7.1	0.00	8.2	1.00	7.1	0.70	4.4	0.20	8.2	0.20
7	9.0	0.40	8.3	0.45	9.6	0.85	9.6	0.85	10.2	0.50	9.6	0.00	8.3	0.00	9.6	1.00	8.3	0.60	5.1	0.25	9.6	0.20
8	10.2	0.50	9.5	0.45	11.0	0.45	11.0	0.90	11.7	0.60	11.0	0.10	9.5	0.00	11.0	1.00	9.5	0.40	5.8	0.10	11.0	0.20
9	11.5	0.35	10.7	0.35	12.3	0.05	12.3	0.30	13.1	0.10	12.3	0.05	10.7	0.01	12.3	1.00	10.7	0.40	6.6	0.01	12.3	0.10
Right Bank	12.8	0.00	11.9	0.00	13.7	0.00	13.7	0.00	14.6	0.00	13.7	0.00	11.9	0.00	13.7	0.00	11.9	0.00	7.3	0.00	13.7	0.00
Feature Type														ca		,						
riffle, run, or pool	n	ın	rı	in	ru	n donth) an		un	ing bank (0	ın		ın	ri:	ffle	po	01	ru	n	ru	ın	ru	n

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted wid

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

1.00 MAXIMUM

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

0.40 MEDIAN

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as  $\geq$  1) All measurements to be taken to the nearest 0.01 meter.

Signed: gillsa gould Date: 10.18.07	Signed: gilisa gould	Date: 10.18.07
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WBID#	443
Site #	7

Date & Time:	9.21.07	10:55		Site Location	Site Location Description (e.g. road crossing):						
Personnel:	D. Dods	son & G. Gould			Elmwood						
Current Weath	ner Cond	ditions: sunny		Facility Nar	me:	?					
Weather cond	itions fo	r the past 10 days: r	no precip	Permit Num	nber:	?					
Drought condi	tions?: N	No drought ☑ ; Pha	se I □ ; Phase	·II □ ; Phas	e III □ ; P	hase IV □ ; Ur	nknown 🗆				
Site Location											
		(Universal Transver			Meters						
Site 01	Easting	(UTM X):	Northing (UTN	· ·		Horizontal Ac	•				
		0408490	4436648				3.4				
Site 11	Easting	(UTM X):	Northing (UTM Y):			Horizontal Accuracy: Me					
		0408508	4436236				5.5				
Photos:											
Photo ID#	Photo Purpose		Photo ID#: Photo Purp		Purpose	Photo ID#:	Photo Purpose				
97	upstream		96	downstream							
Photo ID#	Photo Purpose		Photo ID#	Photo Purpose		Photo ID#	Photo Purpose				
51		=									
Photo ID#	Р	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose				
				<u> </u>							
Uses Observ					ī		Г				
☐ Swimming		☐ Skin diving	☐ SCUBA di	iving	☐ Tubin	g	☐ Water Skiing				
☐ Wind surfi	ng	☐ Kayaking	☐ Boating		☐ Wadir	ng	☐ Rafting				
☐ Hunting		☐ Trapping	☐ Fishing		✓ None	of the above	☐ Other:				
Describe:											

WBID#	443
Site #	7

	Data Sheet B-	Site Characterization	n (Contii	nued)	
Currey ding Conditi					
Surrounding Condition  ☐ City/County parks	ons: ☐ playgrounds	☐ MDC conservatio	n lands	☐ Urban areas	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National Forests	II Idiido	☐ Nature trails	☐ Stairs/walkways
☐ Boating accesses	☐ Fence	☐ No tresspass sign	n	☐ Steep Slopes	☑ Other:
Comments:	<u> </u>	□ 140 ti 000paso 5.g.	'	- Otoop Glopes	E Outor.
crop fields					
0100					
<u> </u>					
Evidence of Human l					
☐ Roads	☐ Foot path/prints	☐ Dock/platform		☐ Camping Sites	☐ Rope swings
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	Э	☐ Fishing Tackle	☐ Livestock watering
comments/other:					
none					
Substrate:					
% Cobble	% Gravel	% Sand	% Silt	% Mud/	Clay % Bedroo
	5	45			50
Aquatic Vegatation:					
1% algae; 7% spike ru	ısh; 10% grasses				
	_				
Water Characteristics			<del>-</del> 3.	· • =	
Odor:	☐ Sewage	,	☐ Chem		None ☐ Other:
Color:	☑ Clear		□ Gray		Milky
Bottom Deposit:	☐ Sludge ☐ Oil		⊔ Fine s □ Foam	ediments 🗹	None ☐ Other:
Surface Deposit:	LI OII	□ Scuiii	⊔ гоані	<b>Y</b>	None 🗀 Other.

#### Field Data Sheets for Recreational Use Stream Surveys

#### **Data Sheet B - Site Characterization (continued)**

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support recreational uses)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	( )				
pool	300	22	91	> 1.0	> 1.0
pool	470	18	26	> 1.0	> 1.0

Comments. (Fleas	se record arry	auditional comments	nere.)							
none										
Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.										
Surveyor's Signatu	ure: <u>(</u>	gilisa gould		_Date of Survey: _	9.21.07	_				
Organizati	ion:	SES, Inc		Position: _	field team leader					

																		DISSO	ivea Ox	vygen		
	Waterbo	ody ID:	443			Site #:	7									Date:	9.21.07			Time:	11:00	
	Estimate	ed Chann	nel Incisio	on:	2.0	(m) (hei	ght betw	een low b	ank wid	th and wa	ater)										(mg/L)	
								izontal Ac	-		(EPE / P	DOP / FO									1	
		UTM X		0408490		1	UTM Y:		4436648			+/-	3.4	(meters)		Di	ssolved (	Oxygen:			(% sat)	
	11	UTM X	<u> </u>	0408508	3		UTM Y:		4436230	5	•	+/-	5.5	(meters)			Specifi	ic Cond:			(μS/cm)	
	Average	Stream	Width:				14.1	(meters)	L	ength of	Survey S	Segment:		282	(meters)		Specifi	e cona.			(µS/CIII)	
	Average Stream Width: 14.1 (meters) Length of Survey Segment: 282 (meters) (To determine Length of Reach) (20x average stream width) Water Temperature: 23.7 (°C)									(°C)												
	Fiel	d Staff:	Drew	Dodson		and	Gilisa G	ould														
														•								
			T							Tra	nsect C	ross-Se	ction									
	0	1	0	2	0	3	(	)4	0	5	0	6	(	07	08	3	0	9	1	0	1	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	2.0	0.00	1.7	0.00	1.4	0.10	2.0	0.00	2.6	0.00	1.7	1.00	1.0	0.05	0.6	0.10	0.6	0.15	0.9	0.05	1.2	0.05
2	4.0	0.00	3.3	0.00	2.7	0.10	4.0	0.00	5.1	0.00	3.3	1.00	2.0	0.05	1.1	0.10	1.3	0.05	1.8	0.30	2.4	0.30
3	6.0	0.00	5.0	0.00	4.1	0.10	6.0	0.01	7.7	0.00	5.0	1.00	3.0	0.15	1.7	0.10	1.9	0.05	2.7	0.40	3.6	0.65
4	8.0	0.01	6.6	0.00	5.5	0.10	8.0	0.10	10.2	0.10	6.6	1.00	4.0	0.25	2.2	0.10	2.6	0.10	3.6	0.50	4.8	>1
5	10.0	0.10	8.3	0.00	6.9	0.10	10.0	0.10	12.8	0.00	8.3	1.00	5.1	0.25	2.8	0.10	3.2	0.25	4.6	0.60	6.0	>1
6	12.0	0.00	9.9	0.00	8.2	0.01	12.0	0.00	15.3	0.00	9.9	1.00	6.1	0.30	3.3	0.10	3.8	0.50	5.5	0.70	7.1	0.70
7	14.0	0.00	11.6	0.00	9.6	0.00	14.0	0.25	17.9	0.00	11.6	1.00	7.1	0.50	3.9	0.10	4.5	0.40	6.4	0.60	8.3	0.60
8	16.0	0.05	13.2	0.00	11.0	0.00	16.0	0.00	20.4	0.00	13.2	0.85	8.1	0.10	4.4	0.20	5.1	0.30	7.3	0.20	9.5	0.40
9	18.0	0.00	14.9	0.00	12.3	0.00	18.0	0.00	23.0	0.00	14.9	0.20	9.1	0.25	5.0	0.15	5.8	0.10	8.2	0.01	10.7	0.20
Right Bank	20.0	0.00	16.5	0.00	13.7	0.00	20.0	0.00	25.5	0.00	16.5	0.00	10.1	0.00	5.5	0.00	6.4	0.00	9.1	0.00	11.9	0.00
Feature Type			,							•		_		•								
riffle, run, or pool		ın	ru		ru			un		ın		ool		un	ru	n	ru	ın	ru	ın	ru	ın
Notes:	Transects w	ill be measur	ed heginning	on left descr	ending hank (	(0 denth) and	d finishing or	n right descend	ling bank (0	denth) This	width is the	wetted width										

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

1.00 MAXIMUM

0.1 MEDIAN

Signed: gilisa gould Date: 10.18.07
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WBID#	443
Site #	8

Date & Time:	9.21.07	12:13	3	Site Location Description (e.g. road crossing):						
Personnel:	D. Dods	son & G. Gould		Highway C						
Current Weath	ner Cond	ditions: clear		Facility Na	me:	?				
Weather cond	itions fo	r the past 10 days:	no precip	Permit Nur	nber:	?				
Drought condi	tions?: N	No drought ☑ ; Pha	ise I □ ; Phase	ı II □ ; Phas	e III □ ; P	hase IV □ ; Ur	nknown 🗆			
Site Location	1:									
Location Coor	dinates	(Universal Transve	rse Mercator Pi	rojection, In	Meters					
Site 01	Easting	(UTM X):	Northing (UTI	M Y):		Horizontal Ad	curacy: Met	ers		
		0408620		4435283			7.9			
Site 11	Easting	(UTM X):	Northing (UTI	M Y):		Horizontal Accuracy: Meter				
		0408644		4435197			5.8			
0.00										
Photos:	1		1	1		1	Τ			
Photo ID#	F	Photo Purpose	Photo ID#: Photo Purpos			Photo ID#:	Photo Purpose			
98	downstream		99	upstream		100	showing ban	k		
Photo ID#	Photo Purpose		Photo ID#	Photo Purpose		Photo ID#	Photo Purpose			
Photo ID#	P	hoto Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose			
Uses Observ	ed:									
☐ Swimming		☐ Skin diving	☐ SCUBA d	iving	☐ Tubin	g	☐ Water Skiing			
☐ Wind surfi	ng	☐ Kayaking	☐ Boating		□ Wadir	ng	☐ Rafting			
☐ Hunting		☐ Trapping	☐ Fishing		☑ None	of the above	☐ Other:			
Describe:										

WBID#	443
Site #	8

## **Data Sheet B- Site Characterization (Continued)**

Surrounding Condition	ons:					
☐ City/County parks	☐ playgrounds	☐ MDC conservation I	ands □ Urban	areas	☐ Rural Residen	itial
☐ Campgrounds	☐ State parks	□ National Forests	☐ Nature		☐ Stairs/walkwa	ys
□ Boating accesses	☐ Fence	☐ No tresspass sign	☐ Steep \$	Slopes	☑ Other:	
Comments:						
quarry; cro	p fields					
Evidence of Human U	leo					
□ Roads	☐ Foot path/prints	☐ Dock/platform	☐ Campir	ag Sitos	☐ Rope swings	
☐ Roads ☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Campir		☐ Livestock water	orina
comments/other:		LINFULO DISCHAIGE		Tackie	LIVESTOCK Water	enny
none						
110110						
Substrate:						
Substrate: % Cobble	% Gravel	% Sand %	Silt	% Mud/C	Clay % Bed	drock
	% Gravel 20	% Sand % 80	Silt	% Mud/C	Clay % Bed	drock
% Cobble			Silt	% Mud/C	Clay % Bed	drock
			Silt	% Mud/C	Clay % Bed	drock
% Cobble  Aquatic Vegatation:	20	80	Silt	% Mud/C	Clay % Bed	drock
% Cobble  Aquatic Vegatation:		80	Silt	% Mud/C	Clay % Bed	drock
% Cobble  Aquatic Vegatation:	20	80	Silt	% Mud/C	Clay % Bed	drock
% Cobble  Aquatic Vegatation:	20	80	Silt	% Mud/C	Clay % Bed	drock
% Cobble  Aquatic Vegatation:  only on bar	20 nks that are not too s	80	Silt	% Mud/C	Clay % Bed	drock
% Cobble  Aquatic Vegatation:  only on bar  Water Characteristics	20 nks that are not too s	80 steep				
% Cobble  Aquatic Vegatation:  only on bar  Water Characteristics Odor:	20  nks that are not too s  s:  Sewage	80 steep	Chemical	☑ 1	v None □ Oth	ner:
% Cobble  Aquatic Vegatation:  only on bar  Water Characteristics	20 nks that are not too s	80 steep  Musky Green		<u> </u>		ner:

#### Field Data Sheets for Recreational Use Stream Surveys

## **Data Sheet B - Site Characterization (continued)**

Additional Stream N	lorphology: (Record isolate	ed pools or other featu	res identified during	the survey that may support	ort recreational uses)
Channel Feature	Distance from	Width (m)	Lenath (m)	Median Depth (m)	Max Depth (m)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	()				
Comments: (Please re-	cord any additional comments I	nere.)			
	none				
Please verify that yo complete.	ou have completed all s	ections, checke	d all applicable	boxes, and that the	form is
Surveyor's Signature:	gilisa gould		Date of Survey:	9.21.07	
Organization:	SES, Inc		Position:	field team leader	

																		Disso	lved Ox	ygen		
		ody ID: ed Chanr		one				aan law b	anle wide	th and we	atan)					Date:	9.21.07		,	Time:	12:13	
				•		•		een low b								Di	ssolved (	Oxygen:		5.3	(mg/L)	
	01	cation - l UTM X UTM X	:	UTM X). 0408620 0408644	)	. 1	Y), Hori UTM Y: UTM Y:		4435283 443519	3		DOP / FO +/- +/-	OM) 7.9 5.8	(meters)		Di	ssolved (	Oxygen:			(% sat)	
		e Stream					2.1	(meters)	т	ength of	Cumrar C	'acmanti		150	(matara)		Specifi	c Cond:			(μS/cm)	
		ermne Le					2.1	(meters)	1	20x avera	-	-		130	(meters)	Wa	ter Temp	erature:		20.1	(°C)	
	Fie	ld Staff:	Drew D	odson a	nd Gilis	a Gould																
										Tra	nsect C	ross-Se	ction									
	01 02 03				02 03 04		0	)5	0	6	(	07	08	3	09		10		11	ĺ		
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m
eft Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.1	0.00	0.1	0.01	0.1	0.05	0.1	0.01	0.1	0.01	0.7	0.00	0.1	0.01	0.2	0.01	0.2	0.01	0.5	0.01	0.4	0.01
2	0.1	0.00	0.1	0.05	0.2	0.05	0.2	0.05	0.1	0.01	1.5	0.01	0.2	0.01	0.4	0.05	0.4	0.01	0.9	0.01	0.7	0.05
3	0.2	0.00	0.2	0.05	0.3	0.01	0.3	0.05	0.2	0.01	2.2	0.00	0.3	0.01	0.5	0.05	0.5	0.01	1.4	0.00	1.1	0.01
4	0.2	0.00	0.2	0.01	0.4	0.01	0.4	0.01	0.2	0.05	2.9	0.00	0.4	0.01	0.7	0.05	0.7	0.05	1.8	0.01	1.5	0.01
5	0.3	0.00	0.3	0.01	0.5	0.05	0.5	0.00	0.3	0.01	3.7	0.00	0.5	0.01	0.9	0.05	0.9	0.05	2.3	0.01	1.9	0.00
6	0.3	0.01	0.3	0.00	0.5	0.10	0.5	0.00	0.3	0.01	4.4	0.00	0.5	0.01	1.1	0.05	1.1	0.01	2.8	0.00	2.2	0.00
7	0.4	0.01	0.4	0.00	0.6	0.10	0.6	0.01	0.4	0.01	5.1	0.00	0.6	0.01	1.3	0.05	1.3	0.01	3.2	0.00	2.6	0.00
8	0.4	0.01	0.4	0.00	0.7	0.05	0.7	0.05	0.4	0.01	5.8	0.05	0.7	0.01	1.4	0.05	1.4	0.05	3.7	0.00	3.0	0.00
9	0.5	0.00	0.5	0.00	0.8	0.05	0.8	0.10	0.5	0.01	6.6	0.05	0.8	0.01	1.6	0.01	1.6	0.01	4.1	0.05	3.3	0.05
ight Bank	0.5	0.00	0.5	0.00	0.9	0.00	0.9	0.00	0.5	0.00	7.3	0.00	0.9	0.00	1.8	0.00	1.8	0.00	4.6	0.00	3.7	0.00
eature Type																				_		_
ffle, run, or pool	ın	un	rı	ın	rı	in		un	_ n	in	rı	ın	r	un	rui	n	ru	n	ru	n	rui	1

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

0.10 MAXIMUM

0.01 MEDIAN

Signed: gilisa gould Date: 10.18.07
-------------------------------------

WBID#	443
Site #	9

Date & Time:	9.21.07	12:45	i	Site Location	on Descrip	tion (e.g. road	crossing):			
Personnel:	D. Dod	son & G. Gould			Granite R	oad				
Current Weat	ner Cond	ditions: clear		Facility Name: ?						
Weather cond	itions fo	r the past 10 days:	no precip	Permit Number: ?						
Drought cond	tions?: I	No drought ☑ ; Pha	ıse I □ ; Phase	· II □ ; Phas	e III □ ; PI	hase IV □ ; Ur	nknown 🗆			
Site Location	1:									
		(Universal Transve	rse Mercator P	rojection, In	Meters					
Site 01	Easting	ı (UTM X):	Northing (UTI	M Y):		Horizontal Ac	ccuracy:	Meters		
	_	0408663		4433476				5.2		
Site 11	Easting	ı (UTM X):	Northing (UTI	M Y):		Horizontal Ac	Meters			
		0408665		4433351				4.6		
		0100000	. 1	110000						
Photos:	ı			<u> </u>		<u> </u>	ı			
Photo ID#	F	Photo Purpose	Photo ID#:	Photo F	Purpose	Photo ID#:	Photo Purp	ose		
101		downstream	102	upstream						
Photo ID#	P	Photo Purpose	Photo ID#	Photo F	Purpose Photo II		Photo Purp	ose		
Photo ID#	F	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purp	ose		
Uses Observ	ed:									
☐ Swimming		☐ Skin diving	☐ SCUBA d	iving	☐ Tubin	g	☐ Water Skiing			
☐ Wind surfi	ng	☐ Kayaking	☐ Boating		□ Wadir	ng	☐ Rafting			
☐ Hunting		☐ Trapping	☐ Fishing		☑ None	of the above	☐ Other:			
Describe:										

WBID#	443
Site #	9

## **Data Sheet B- Site Characterization (Continued)**

Surrounding Conditi	ions:				
☐ City/County parks	☐ playgrounds	☐ MDC conservat	ion lands	☐ Urban areas	☐ Rural Residentia
☐ Campgrounds	☐ State parks	□ National Forest	S	☐ Nature trails	☐ Stairs/walkways
☐ Boating accesses	☐ Fence	☐ No tresspass si	gn	☑ Steep Slopes	☐ Other:
Comments:					•
none					
Fridance of Human I	11				
Evidence of Human				Comming Cites	I Dono ovince
☐ Roads	☐ Foot path/prints	☐ Dock/platform		☐ Camping Sites	☐ Rope swings
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Dischar	ge	☐ Fishing Tackle	☐ Livestock water
comments/other:					
none					
<u></u>					
Substrate:					
Substrate: % Cobble	% Gravel	% Sand	% Silt	% Mud/	Clav % Bedro
	% Gravel 10	% Sand 60	% Silt	% Mud/ 30	
			% Silt		
			% Silt		
% Cobble			% Silt		
% Cobble	10		% Silt		
% Cobble  Aquatic Vegatation:	10		% Silt		
% Cobble  Aquatic Vegatation:	10		% Silt		
% Cobble  Aquatic Vegatation:  no vegetation in water	10 r, only on banks		% Silt		
% Cobble  Aquatic Vegatation:  no vegetation in water  Water Characteristic	r, only on banks	60		30	
% Cobble  Aquatic Vegatation:  no vegetation in water  Water Characteristic Odor:	n, only on banks s: □ Sewage	60	□ Chem	ical ☑	None □ Othe
% Cobble  Aquatic Vegatation:  no vegetation in water  Water Characteristic	r, only on banks	60		ical ☑	None □ Othe
% Cobble  Aquatic Vegatation:  no vegetation in water  Water Characteristic  Odor:  Color:	n, only on banks  cs:  □ Sewage □ Clear	60  ☐ Musky ☐Green	□ Chem	ical ☑ I	None □ Othe Milky ☑ Othe brown, not clear, si
% Cobble  Aquatic Vegatation:  no vegetation in water  Water Characteristic Odor:	n, only on banks s: □ Sewage	60	□ Chem	ical ☑ leediments ☑ l	None □ Othe

Organization: SES, Inc.

### Field Data Sheets for Recreational Use Stream Surveys

## **Data Sheet B - Site Characterization (continued)**

Additional Stream I	Morphology:	(Record isolated pools of	r other features identified during	the survey that may	support recreational uses)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	access location (III)				
Comments: (Please re	cord any additional comments I	nere.)			
	none				
Please verify that yo complete.	ou have completed all so	ections, checke	d all applicable	boxes, and that the	form is
Burveyor's Signature:	gilisa gould		_Date of Survey:	9.21.07	
			-		

Position: field team leader

																		Disso	lved Ox	ygen		
		ody ID:						een low b		مريد له مدما	.4)					Date:	9.21.07			Time:	12:45	
				•												Di	ssolved (	Oxygen:		0.9	(mg/L)	
	01	cation - I UTM X UTM X	:	UTM X). 0408663 0408665	3	1	UTM Y:		4433470	6	•	DOP / FO +/- +/-	OM) 5.2 4.6	(meters)		Di	ssolved (	Oxygen:			(% sat)	
									· (	Specific Cond:(µS/cm)												
	Average Stream Width: 4.2 (meters) Length of Survey Segment: 150 (meters) (20x average stream width)									(meters)	Wa	ter Temp	erature:		22.9	(°C)						
	Fiel	ld Staff:	Drew D	odson an	d Gilisa	Gould								<u>.</u>								
										Tra	nsect C	ross-Se	ction									
	01 02 03				13		04 05		0	16	(	07	08	8	0	9	1	0	1:	1		
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m
eft Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.7	0.10	0.7	0.10	0.5	0.05	0.4	0.05	0.3	0.05	0.1	0.01	0.1	0.05	0.8	0.10	0.4	0.05	0.6	0.05	0.2	0.05
2	1.5	0.25	1.5	0.20	0.9	0.25	0.7	0.15	0.5	0.10	0.2	0.01	0.2	0.10	1.6	0.10	0.7	0.01	1.1	0.35	0.4	0.10
3	2.2	0.15	2.2	0.30	1.4	0.35	1.1	0.25	0.8	0.25	0.3	0.01	0.3	0.10	2.5	0.05	1.1	0.05	1.7	0.01	0.5	0.15
4	2.9	0.25	2.9	0.15	1.8	0.25	1.5	0.30	1.1	0.30	0.4	0.01	0.4	0.05	3.3	0.00	1.5	0.05	2.2	0.00	0.7	0.25
5	3.7	0.20	3.7	0.20	2.3	0.20	1.9	0.25	1.4	0.30	0.5	0.00	0.5	0.05	4.1	0.00	1.9	0.05	2.8	0.00	0.9	0.30
6	4.4	0.20	4.4	0.20	2.8	0.20	2.2	0.20	1.6	0.35	0.5	0.00	0.5	0.05	4.9	0.00	2.2	0.05	3.3	0.00	1.1	0.20
7	5.1	0.25	5.1	0.35	3.2	0.15	2.6	0.15	1.9	0.30	0.6	0.01	0.6	0.01	5.7	0.00	2.6	0.05	3.9	0.00	1.3	0.20
8	5.8	0.25	5.8	0.35	3.7	0.15	3.0	0.05	2.2	0.30	0.7	0.01	0.7	0.01	6.6	0.20	3.0	0.01	4.4	0.00	1.4	0.10
9	6.6	0.05	6.6	0.05	4.1	0.05	3.3	0.01	2.4	0.10	0.8	0.01	0.8	0.01	7.4	0.10	3.3	0.01	5.0	0.05	1.6	0.05
ight Bank	7.3	0.00	7.3	0.00	4.6	0.06	3.7	0.00	2.7	0.00	0.9	0.00	0.9	0.00	8.2	0.00	3.7	0.00	5.5	0.00	1.8	0.00
eature Type				1											.0			a				
ffle, run, or pool	pc	ool	pc	ool	rı	ın	r	un	n	ın	n	ın	r	un	rif	ie	rif	ie	rı	ın	ru	n

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

0.35 MAXIMUM

0.05 MEDIAN

Signed: gilisa gould Date: 10.18.07	
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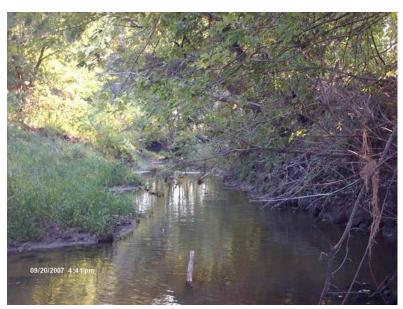
Site# 1 Photo ID# 83, Upstream



Site# 2 Photo ID# 81, Upstream



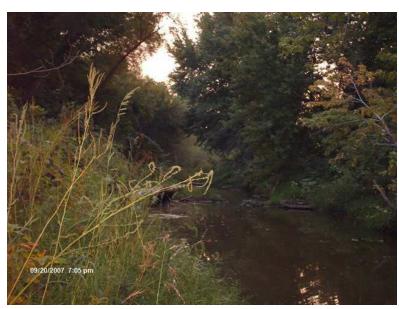
Site# 1 Photo ID# 84, Downstream



Site# 2 Photo ID# 82, Downstream



Site# 3 Photo ID# 86, Downstream



Site# 4 Photo ID# 88, Downstream



Site# 3 Photo ID# 87, Upstream



Site# 4 Photo ID# 89, Upstream



Site# 5 Photo ID# 90, Downstream



Site# 6 Photo ID# 92, Upstream



Site# 5 Photo ID# 91, Upstream



Site# 6 Photo ID# 93, Downstream



Site# 6 Photo ID# 94, Livestock watering



Site# 7 Photo ID# 97, Upstream



Site# 6 Photo ID# 95, Livestock watering



Site# 7 Photo ID# 96, Downstream



Site# 8 Photo ID# 98, Downstream

No Photo



Site# 8 Photo ID# 99, Upstream



Site# 9 Photo ID# 101, Downstream

Site# 8 Photo ID# 100, Showing bank



Site# 9 Photo ID# 102, Upstream